

EDUCATION

- **Indian Institute of Technology (IIT) Kharagpur** Kharagpur, India
Master's & Bachelor's in Electrical Engineering (Signal Processing), CGPA: 8.54/10 July 2012 – May 2017
- **Delhi Public School RK Puram** Delhi, India
Senior Secondary (CBSE), Marks: 93% July 2010 – May 2012

EXPERIENCE

- **Grab Holdings Inc.** Singapore
Lead Data Scientist (earlier Senior Data Scientist), Grab Food Oct 2019 - Present
 - Part of the team responsible for enabling Machine learning capabilities, building predictive models and ETL Pipelines; collaborating with internal stakeholders, PMs, POs during various phases of a project.
 - Leading food delivery ETA/Food prep time prediction framework; helped to improve total ETA prediction accuracy from 72% to 81% by implementing Dynamic batching buffer model using real-time signals, weather signals etc, capturing driver supply demand characteristics; improved Food Preparation time (FPT) prediction from 62% to 77% further improving use-cases like MOR, delay order allocation, Self-pickup orders ETA, Mex quality score etc.
 - Developed model to automatically detect service hour changes in restaurant which led to minimize order cancellations due to restaurant closure by 20%. Also worked on DRM model which helps in auto-close the restaurant for the day if restaurant is closed but marked as open on merchant app thus reducing cancellations.
 - Led AWS cloud cost optimization initiative; Implemented caching, migrated existing models/servers to custom serving infra (Kubernetes), python based Falcon servers to golang based microservices with higher concurrency.
 - Tech stack: PySpark/Spark, Python, SQL, GoLang, Airflow, AWS infra, MLFlow, Kubernetes, Datadog
- **SAP Labs Pvt. Ltd.** Bangalore, India
Data Scientist, Innovative Business Solutions (IBSo) July 2017 - Sept 2019
 - Solution developer for a customer project on scheduling Rigs for oil wells' maintenance; objective was to maximize oil production gain, taking into account several industry constraints; custom optimization algorithm was modeled in Python and HANA-SQL increasing the oil production by 6.2% .
 - Developed a time-series forecasting API to forecast consumption of retail products with a dynamic safety stock band for inventory replenishment; achieved average forecast MAPE of 8% using XGBoost and ARIMA.
 - Developed an image classification model for online fashion store client; multi-label classification belonging to 350 classes and a million sample input; fine tuned CNN with 16 layers to achieve hamming score of 65%.

RELEVANT PROJECTS

- Master's Thesis: Classification and Prediction of brain injury from heterogeneous biomedical data
 - Prediction of behavioral change with MRI data; used boosted and stacked Random Forest models.
 - Predicting medical efficacy and improvement in patients using statistical measures.
- Built WebUI for Face recognition and tracking of known faces from CCTV security cameras live video stream using face similarity matching using Python and SAP Cloud platform.
- Developed flask based Python chatbot for reporting queries from database based on Google DialogFlow and Recast.AI.

PATENTS

- **US20210095559A1**[Granted] Workover rig scheduling to maximize oil production for onshore oil fields
- [Pending] Dynamic Padding Buffer Time Optimisation for Food ETA Prediction
- [Pending] A real-time Reinforcement Learning Framework for food ETA Prediction

TECHNICAL SKILLS & CERTIFICATIONS

- **Languages/Platforms:** Python, SQL, C++, Golang, Perl, MATLAB, AWS, Azure services, SAP Cloud Platform
- **Software Packages:** Apache Spark, Apache Airflow, TensorFlow, Keras, MLFlow, SAP HANA
- **Knowledge Areas:** Machine Learning, Statistics, Deep Learning, Time-series forecasting
- **Certifications:** Microsoft Certified Azure Data Scientist
Neural Networks and Deep Learning by deeplearning.ai on Coursera
Other relevant certifications link